IN THE CLAIMS:

1.- 2. (canceled)

3. (currently amended) A method for tuning the torsional natural frequency of a turbine generator rotor comprising the step of forming within winding slots defined by radially projecting winding teeth at least one tuning slot that extends radially inwardly from the bottom of the winding slot, or from the bottom of a cooling channel under the winding slot, a distance to tune the rotor to a desired torsional natural frequency;

~~A method according to Claim 1,~~ wherein the at least one tuning slot comprises a set of tuning slots numbering substantially fewer than the winding slots and positioned at a location that minimizes impact to the electromagnetic characteristics of the rotor cross-section.

4. - 6. (canceled)

7. (currently amended) A method for tuning the torsional natural frequency of a generator rotor having opposing poles and a quadrature axis, comprising the step of forming within the winding slots defined by radially projecting winding teeth that are positioned substantially at the quadrature axis, at least one tuning slot that extends radially inwardly from the bottom of the winding slot, or from the bottom of a cooling channel under the winding slot, a distance to tune the rotor to a desired torsional natural frequency;

~~A method according to Claim 5,~~ wherein the at least one tuning slot comprises a set of tuning slots numbering fewer than the winding slots and positioned at a location that minimizes impact to the electromagnetic characteristics of the rotor cross-section.

8. - 15. (canceled)

16. (currently amended)

A turbine generator rotor comprising:

a rotor shaft;

a cylindrically configured rotor body formed as part of the shaft and having a plurality of radially projecting winding teeth defining winding slots for receiving winding wire therein, said rotor body having two or more poles and a quadrature axis, said winding slots having a bottom spaced radially inward and optionally including a cooling channel; and

at least one tuning slot positioned at the quadrature axis and extending radially inward from the bottom of the winding slot or the bottom of the cooling slot a distance that tunes the rotor to a desired torsional natural frequency, wherein said at least one tuning slot has a width substantially smaller than either the winding slot or the cooling channel;

~~A rotor according to Claim 14,~~ wherein the at least one tuning slot comprises a set of tuning slots numbering substantially fewer than the winding slots and positioned at a location that minimizes impact to the electromagnetic characteristics of the rotor cross-section.

17. (canceled)

18. (previously presented) A generator rotor comprising:

a rotor shaft;

a cylindrically configured rotor body formed as part of the shaft, said rotor body having a plurality of radially projecting winding teeth defining winding slots for receiving winding wire therein, said rotor body having two poles and a quadrature axis, said winding slots having a lowest surface formed by either the bottom of the winding slot or the bottom of a cooling channel located radially inward from the winding slot; and

at least one tuning slot extending radially inward from the lowest surface of the winding slot a distance that tunes the rotor to a desired torsional natural frequency, wherein said winding slots positioned near said poles are devoid of any tuning slot so that fewer that all of said winding slots incorporate a tuning slot.

19. (original) A rotor according to Claim 18, wherein said at least one tuning slot has a width smaller than the diameter of any winding wire received within the winding slot to prevent winding wire from passing into the tuning slot.

20. (original) A rotor according to Claim 18, wherein the at least one tuning slot is positioned at a location that minimizes impact to the electromagnetic characteristics of the rotor cross-section.